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10/694,004	10/28/2003	Itaru Furukawa	50063-068	3665
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McDERMOTT, WILL & EMERY 600 13th Street, N.W. Washington, DC 20005-3096				
			EXAMINER ALLISON, ANDRAE S	
			ART UNIT 2624	PAPER NUMBER

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/694,004

Applicant(s)

FURUKAWA ET AL.

Examiner

Andrae S. Allison

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on October 28, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>February 27, 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 5 is objected to because of the following informalities: The phrase "one specific type by not all" in claim 5, line 3 should read "one specific type but not all" because the word "by" should be replaced with "but". Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 17 define a "computer program product" with descriptive material. While "functional descriptive material" may be claimed as a statutory product (i.e., a "manufacture") when embodied on a tangible computer readable medium, a carrier wave (see spec page 2, line 28) embodying that same

functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al (US Patent No.: 5,969,798) in view of Chang et al (US Pub. No US 2002/0097419).

As to claim 1, Nakagawa discloses a prepress system (image inspection apparatus, column 1, lines 1-2). Nakagawa teaches a raster image processor for developing first print image data (read an image of a frame; column 9, line 13-14) to display resolution (display format, column 10, line 54) to create first raster image data (first revise, column 9, line 29), and for developing second print image data (read another frame; column 9, line 23) to the display resolution to create second raster image data (second revise; column 9, line 49); Nakagawa also teaches a data storage (61, see Fig 4; memory is a part of the control arithmetic unit) for storing the first raster image

data created in advance prior to creation of the second raster image data; Nakagawa further teaches a plate image inspection processor (61, see Fig 4; a CPU is a part of the control arithmetic unit) for executing a plate image inspection process by comparing the first and second raster image data. Additionally, Nakagawa teaches displaying on a display device (62, CRT; see Fig 4) a result of the plate image inspection process (see column 11, line 36).

However, Nakagawa does not teach a raster image processor. Chang teaches an information apparatus (page 3, [p][25], lines 2-3) that includes a raster image processor. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to have added the information apparatus of Chang to the image inspection apparatus of Nakagawa for “converting objects and descriptions (e.g. graphics, text) included in the content into an image form suitable for output” (page 2, [p][16] lines 1-3).

As to claim 9, Nakagawa discloses a method of executing plate image inspection (performing image inspection in a plate making process; column 1, lines 1-2).

Nakagawa teaches developing first print image data (read an image of a frame; column 9, line 13-14) to display resolution (display format, column 10, line 54) to create first raster image data (first revise, column 9, line 29); Nakagawa also teaches developing second print image data (read another frame; column 9, line 23) to the display resolution to create second raster image data (second revise; column 9, line 49). Additionally, Nakagawa teaches executing a plate image inspection process by

comparing the first and second raster image data (see column 10, lines 62-63) and displaying on a display device (62, CRT; see Fig 4) a result of the plate image inspection process (see column 11, line 36).

However, Nakagawa does not teach a raster image data. Chang teaches a universal output data method (page 3, [p][25], lines 2-3) that includes a raster image processor to create raster image data (rasterization, page 15, [p][0192]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to have added the universal output data method of Chang to the image inspection method of Nakagawa for "converting objects and descriptions (e.g. graphics, text) included in the content into an image form suitable for output" (page 2, [p][16] lines 1-3).

As to claim 17, Nakagawa discloses a computer program product for executing plate image inspection (image inspection apparatus, column 1, lines 1-2), the computer program product comprising: a computer readable medium (61, see Fig 4; memory is a part of the control arithmetic unit); and a computer program (see Fig 5) stored on the computer readable medium, the computer program including: a first program (first and second revise reading, see Fig 5) for causing a computer to develop first print image data to display resolution to create first raster image data, and to develop second print image data to the display resolution to create second raster image data; and a second program (plate inspection, see Fig 10) for causing the computer to execute a plate image inspection process by comparing the first and second raster image data, and

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displaying on a display device (62, CRT; see Fig 4) a result of the plate image inspection process.

As to claim 2, note the discussion above, Chang teaches a prepress system according wherein the print image data may include a text object, a graphics object, and a bitmap image object in respective formats (page 15, [p][0192], lines 1-2).

As to claim 3, Nakagawa teaches wherein the plate image inspection process includes calculating, for each pixel location, a pixel value difference between the first and second raster image data (column 10, lines 60), and the result of the plate image inspection process distinctly displays pixels whose pixel value difference is greater than a threshold value (column 10, lines 63-64), which can be adjusted by a user (see column 10, line 52-53, where an operator sets plate inspection conditions such as threshold value).

As to claim 4, Nakagawa teaches a prepress system wherein the plate image inspection processor enables a user to select the first raster image data for use in the plate image inspection process (column 9, lines 64-65).

As to claim 5, note the discussion above, Chang teaches a prepress system wherein if the print image data includes plural types of image objects, the developing is performed using at least one specific type by not all types of image objects (see page

15, [p][0192] lines 11-15, where rasterization is done according to different requirements and attribute of an output device).

As to claim 6, Nakagawa teaches a prepress system wherein the raster image processor is capable of re-developing the second print image data after a reference image position for image development being moved by a distance smaller than a pixel pitch at the display resolution (see column 10, lines 35-38, where the second revise to moved with respect to first revise for alignment).

As to claim 7, Nakagawa teaches a prepress system wherein the raster image processor divides a print area represented by the second print image data into a plurality of divisional areas each having an individual reference image position for image development (column 10, lines 57-59); and the plate image inspection processor determines independently the plate image inspection result for each of the plurality of areas (column 10, lines 60-62).

As to claim 8, Nakagawa teaches a prepress system wherein the raster image processor develops the second print image data with a plurality of reference image positions for image development to create plural sets of the second raster image data, the plurality of reference image positions being separated by a distance smaller than a pixel pitch at the display resolution (see column 10, lines 35-38, where the second revise to moved with respect to first revise for alignment), and the plate image

inspection processor calculates, for each of the plural sets of the second raster image data, an image difference magnitude that represents magnitude of difference from the first raster image data areas (column 10, lines 60-62) , and displays on the display device the plate image inspection result based on a selected one of the plural sets of the second raster image data having the smallest value of the image difference magnitude (see column 11, line 36).

Claim 10 differ from claim 2 only in that claim 2 is an apparatus claim whereas, claim 10 is a method claim. Thus, claim 10 is analyzed as previously discussed with respect to claim 2 above.

Claim 11 differ from claim 3 only in that claim 2 is an apparatus claim whereas, claim 11 is a method claim. Thus, claim 11 is analyzed as previously discussed with respect to claim 3 above.

Claim 12 differ from claim 4 only in that claim 12 is an apparatus claim whereas, claim 12 is a method claim. Thus, claim 12 is analyzed as previously discussed with respect to claim 4 above.

Claim 13 differ from claim 5 only in that claim 5 is an apparatus claim whereas, claim 13 is a method claim. Thus, claim 13 is analyzed as previously discussed with respect to claim 5 above.

Claim 14 differ from claim 6 only in that claim 6 is an apparatus claim whereas, claim 14 is a method claim. Thus, claim 14 is analyzed as previously discussed with respect to claim 6 above.

Claim 15 differ from claim 7 only in that claim 7 is an apparatus claim whereas, claim 15 is a method claim. Thus, claim 10 is analyzed as previously discussed with respect to claim 7 above.

Claim 16 differ from claim 8 only in that claim 8 is an apparatus claim whereas, claim 16 is a method claim. Thus, claim 16 is analyzed as previously discussed with respect to claim 8 above.

Conclusion

The prior art made part of the record and not relied upon is considered pertinent to applicant's disclosure.

Bronstein et al (US Patent No.: 6,031,932) is cited to teach a method and system for inspecting a printing plate or cylinder.

Sakai et al (7,020,350) is cited to teach an inspection device that compares an inspection image with a reference image that is applicable to printed plates.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrae S. Allison whose telephone number is (571) 270-1052. The examiner can normally be reached on Monday-Friday, 8:00 am - 5:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh D. Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrae Allison

September 18, 2006

A.A.


CHANH D. NGUYEN
SUPERVISORY PATENT EXAMINER